

WEATHER ON THE ATLANTIC AND PACIFIC OCEANS

[The Marine Division, I. R. TANNERHILL, in charge]

NORTH ATLANTIC OCEAN, MARCH 1940

By J. H. GALLENE

Atmospheric pressure.—All ocean areas from which reports were received, with the exception of Julianehaab, Greenland, and Belle Isle, Newfoundland, showed negative departures from normal mean monthly barometric pressures for March 1940. Average pressure values for the month, as in February 1940, were highest over the Gulf of Mexico and lowest over the north-central portion of the Atlantic. (See table 1.)

The pressure readings received from ships at sea ranged from 1,033 to 942.5 millibars (30.50–27.83 inches). The highest pressures were reported on the 28th and 29th from the steamships *Lafco* and *Tuscaloosa City*, respectively, both near latitude 33° N., and longitude 29° W. The lowest was observed on the S. S. *Pennland* at 9:30 a. m. of March 16, in connection with an area of low pressure, centered near latitude 47° N. and longitude 37.5° W.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure (sea level) at selected stations for the North Atlantic Ocean and its shores, March 1940

| Station | Average pressure | Departure | Highest | Date | Lowest | Date |
|-------------------------------------|------------------|-----------|-----------|--------|-----------|------|
| | Millibars | Millibars | Millibars | | Millibars | |
| Julianehaab, Greenland ¹ | 1,010.3 | +5.6 | 1,030 | 16 | 981 | 27 |
| Horta, Azores ² | 1,012.6 | −9.4 | 1,030 | 26, 27 | 997 | 15 |
| Belle Isle, Newfoundland | 1,010.8 | +0.6 | 1,031 | 15 | 990 | 24 |
| Halifax, Nova Scotia | 1,009.9 | −4.7 | 1,028 | 2, 14 | 983 | 9 |
| Nantucket | 1,012.9 | −2.3 | 1,033 | 2 | 994 | 31 |
| Hatteras | 1,015.9 | −1.4 | 1,030 | 26 | 996 | 8 |
| Turks Island | 1,015.6 | −1.0 | 1,021 | 17 | 1,006 | 8 |
| Key West | 1,016.1 | −1.5 | 1,022 | 16, 17 | 1,005 | 8 |
| New Orleans | 1,016.7 | −0.6 | 1,029 | 15 | 1,004 | 7 |

¹ For 29 days.

² For 27 days.

NOTE.—All data based on available observations. Departures compiled from best available normals related to time of observation, except Hatteras, Key West, Nantucket, and New Orleans, which are 24-hour corrected means.

Cyclones and gales.—The number and intensity of cyclones during March, were much less than in the preceding month, and no winds of hurricane force were reported.

During the first quarter of the month, moderate depressions dominated the central and northern portions of the ocean, causing fresh to strong gales over that area.

The coastal waters between Hatteras and Jacksonville experienced disturbed conditions, arising from a shallow depression, 994 millibars (29.35 inches) centered near Savannah, on the morning of March 8. At the a. m. observation of the following day, this disturbance was located near latitude 34°34' N. and longitude 69° W.

Several vessels in the southerly quadrant of the low encountered strong to whole gales during March 9. This depression moved in a north-northeasterly direction for the next three or four days toward higher latitudes, where it could no longer be identified owing to insufficient vessel reports.

The American S. S. *Cathlamet*, bound from Dakar, West Africa to Philadelphia, reported southwest wind force 10 (Beaufort scale) at 2 p. m. of the 9th, near latitude 31.6° N. and longitude 60.2° W., and further:

That during the lull between high winds the force was between 5 and 8. The wind ranged between west-southwest and north during this period. The sky would cloud over completely in a very short time and clear as readily all during the blow. Occasional very violent squalls would blow with near hurricane force, one could see clear sky at the same time up ahead. There was much rain and lightning.

Chart XIV at the end of this REVIEW, shows weather conditions on the Atlantic at the morning observation (1200 G. M. T.) of March 9. On the morning of March 11, a secondary low, in connection with the cyclone just described, formed near latitude 42° N. and longitude 50° W. This depression moved slowly eastward with increasing intensity, and caused generally disturbed and heavy weather over the north-central and the northeastern portions of the Atlantic for the next 6 or 7 days. In connection with the disturbance United States Coast Guard Cutter *Hamilton*, near latitude 35.7° N. and longitude 53.3° W., reported numerous severe squalls during the afternoon and evening of the 12th with winds reaching force 11 (Beaufort scale) on occasions. Her lowest barometer reading of 998.0 millibars (29.47 inches) was recorded at 2 p. m. of that day.

During the remainder of the month the disturbances charted were of moderate intensity.

Fog.—From reports at hand, indications are that less fog than usual occurred near the Grand Banks during the month, but it continued plentiful over the coastal area between Nantucket and Hatteras. However, over the North Atlantic from the Grand Banks eastward there were very few reporting ships.

Thick to dense fog was observed on 6 days during March over the north-central portion of the Gulf of Mexico.

Unusual fog conditions off the north coast of Cuba were noted by the observer on the American Tanker *R. P. Smith*, who reported that from 12:55 to 14:00 G. M. T. of March 20, near latitude 24°25' N. and longitude 83°30' W., very thick fog was encountered, which reduced visibility to a few hundred yards, and that the sun was completely obscured at times.

Elsewhere during the month, only scattered observations of fog were noted.